

## **I. AMENDMENTS TO THE CLAIMS**

Claim 1. (Currently Amended): A process for the production of a sterol fatty acid ester-rich composition comprising the steps of:

- (a) combining
  - a sterol composition, comprising one or more sterols,
  - a fatty acid glyceride composition, comprising glycerol fatty acid esters of one or more fatty acids, and
  - an esterification catalyst to form a reaction mixture,
- (b) performing esterification of sterol(s) in said reaction mixture to produce a sterol fatty acid ester containing mixture,
- (c) adding a hydrolysis catalyst and an alkylating component to hydrolyse mono-, di- and/or triglycerides present therein and to produce corresponding fatty acid alkyl ester(s) and glycerol, and
- (d) purifying the sterol fatty acid ester containing mixture to form a sterol fatty acid ester-rich composition.

Claim 2. (Original): The process according to claim 1, wherein to the reaction mixture or to its components in step (a) is added at least one fatty acid alkyl ester.

Claim 3. (Previously Presented): The process according to claim 1, wherein step (d) includes step (d1) comprising purifying said sterol fatty acid ester containing mixture by removing glycerol from said mixture.

Claim 4. (Original): The process according to claim 3, wherein in step (d1) the esterification catalyst and/or the hydrolysis catalyst is removed together with glycerol from the sterol fatty acid ester containing mixture.

Claim 5. (Previously Presented): The process according to claim 1, wherein step (d) includes step (d2) comprising purifying said sterol fatty acid ester containing mixture by separating fatty acid alkyl ester from said mixture.

Claim 6. (Original): The process according to claim 5, comprising a further step of feeding fatty acid alkyl ester separated in step (d2) into the sterol composition, the

fatty acid glyceride composition, the esterification catalyst and/or into the reaction mixture formed in step (a).

Claim 7. (Previously Presented): The process according to claim 1, wherein the hydrolysalation catalyst and the alkylating component are added in step (c) as a pre-prepared hydrolysing and alkylating composition.

Claim 8. (Previously Presented): The process according to claim 1, wherein the hydrolysalation catalyst is KOH and the alkylating component is methanol.

Claim 9. (Previously Presented): The process according to claim 1, wherein in step (a) the esterification catalyst is chosen from the group comprising metal alkoxides, such as  $\text{NaOCH}_3$  and  $\text{NaOC}_2\text{H}_5$ , metal oxides, alkali hydroxides, metal soaps, metal alloys, metal hydrides, metal amides and their mixtures.

Claim 10. (Previously Presented): The process according to claim 1, wherein the reaction mixture in step (c) comprises 0.01-10 % by weight of the hydrolysalation catalyst.

Claim 11. (Previously Presented): The process according to claim 1, wherein the reaction mixture in step (c) comprises 0.01-75 % by weight, of the alkylating component.

Claim 12. (Currently Amended): The process according to claim ~~[[1]]~~ 7, wherein the hydrolysing and alkylating composition ~~or its separate components~~ comprise at least 50 % methanol and at most 50 % KOH.

Claim 13. (Previously Presented): The process according to claim 1, wherein step (d) includes the sterol fatty acid ester containing mixture being purified by bleaching, filtration and/or deodorisation.

Claim 14. (Previously Presented): The process according to claim 1, wherein in step (a) the reaction mixture is formed by including in mol ratio 1 mol of one or more sterols, 0.3-0.7 mol of one or more fatty acid glycerides and 0.9-2.1 mol of one or

more fatty acid methyl esters recycled from step (d2).

Claim 15. (Previously Presented): The process according to claim 1, wherein the hydrolysis catalyst and the alkylating component are added to the sterol fatty acid ester containing mixture in step (c) when the esterification reactions are complete or mainly complete.

Claim 16. (Previously Presented): The process according to claim 1, wherein the sterol fatty acid ester-rich composition produced comprises at least 90 % by weight sterol fatty acid ester(s).

Claim 17. (Withdrawn): The use of a sterol fatty acid ester-rich composition produced by the process of claim 1 as a dietary, pharmaceutical and/or cosmetic product or in the preparation thereof.

Claim 18. (Withdrawn): A sterol fatty acid ester-rich composition produced by the process of claim 1.

Claim 19. (Withdrawn): A method for recovering food-grade sterol fatty acid ester(s) from a fat mixture containing fatty acid glycerides and sterol fatty acid ester(s), comprising the steps of:

- (i) adding to said fat mixture a hydrolysis catalyst and an alkylating component to hydrolyse the glycerides and to produce corresponding fatty acid alkyl ester(s), without significant hydrolysis of the sterol fatty acid ester(s),
- (ii) removing excess alkylating component, the hydrolysis catalyst and glycerol,
- (iii) purifying the obtained product by washing with water and/or by an adsorbent treatment or by washing with an acid aqueous solution and/or by an adsorbent treatment, and
- (iv) purifying the obtained product by deodorisation to remove the fatty acid alkyl ester(s) and impurities and to produce pure sterol fatty acid ester(s).

Claim 20. (Withdrawn): The method according to claim 19, wherein the hydrolysis catalyst is chosen from the group of bases comprising alkali

hydroxides, such as KOH and/or NaOH, and alkali oxides.

Claim 21. (Withdrawn): The method according to claim 19, wherein the alkylating component is chosen from the group of lower alcohols comprising C1-4 alkanols.

Claim 22. (Withdrawn): The method according to claim 19, wherein the fat mixture, before adding the hydrolysis catalyst and the alkylating component, contains 1-99 % by weight glycerides and 1-99 % by weight sterol fatty acid ester(s).

Claim 23. (Withdrawn): The method according to claim 19, comprising adding to the fat mixture 0.01-10 %, by weight of the hydrolysis catalyst.

Claim 24. (Withdrawn): The method according to claim 19, comprising adding to the fat mixture 0.01-75 %, by weight of the alkylating component.

Claim 25. (Withdrawn): The method according to claim 19, comprising adding the hydrolysis catalyst and the alkylating component as a pre-prepared hydrolysing and alkylating composition.

Claim 26. (Withdrawn): The method according to claim 19, wherein the hydrolysing and alkylating composition or its components include at least 50 % by weight methanol and at most 50 % by weight KOH.

Claim 27. (Withdrawn): The method according to claim 19, wherein step (i) is carried out at a temperature between 60-100 °C, at a pressure of at most 100 kPa, and for a period of from 1 minute to 6 hours.

Claim 28. (Withdrawn): The method according to claim 19, wherein step (iv) is carried out at a temperature of between 160-230 °C, and at a pressure of 1-1000 Pa.

Claim 29. (Withdrawn): Sterol fatty acid ester(s) produced by the method of claim 19.